

REMARKS/ARGUMENTS

As a result of this Amendment, claims 1-2, 5-8, 12 and new claims 32-34 are under active consideration in the subject patent application.

In the Official Action, the Examiner has:

- (1) acknowledged Applicant's election of Group I (claims 1-12);
- (2) objected to claim 2 for alleged informalities;
- (3) rejected claims 1, 6, 7, and 9-11 under 35 U.S.C. §102(b) as being allegedly anticipated by International Patent Application Publication. No. WO 95/03371, filed by Rampton (the "Rampton publication"); and
- (4) rejected claim 8 under 35 U.S. C. 103(a) in view of the Rampton publication.

With regard to Item 1, no comment appears necessary.

With regard to Item 2, the alleged nomenclature informality has been corrected by replacing the word "sewerage" with the word -- sewage--. In addition, claim 1 has been amended by incorporating the features of now cancelled claims 3 and 4, and minor amendments have been made to claims 5 and 7 to correct dependencies and to clarify the claim language. New dependent claims 32-34 have been added to so as to further define inventive aspects of the present invention. No new matter has been entered into the application as a result of these changes to the claims.

With regard to Items 3 and 4, Applicants traverse the Examiner's reliance upon the Rampton publication, and request withdrawal of the rejection under 35 U.S.C.

§102(b) of claims 1, 6, 7, and 9-11; and claim 8 under 35 U.S. C. 103(a) for the following reasons.

Anticipation under 35 U.S.C. §102 requires that each and every element of the invention defined in the claim be met in a single prior art reference. Those elements must either be inherent or disclosed expressly, and must be arranged as described in the claim. See, Diversitech Corporation v. Century Steps, Inc., 850 F. 2d 675, 7 U.S.P.Q. 2d 1315 (Fed. Circuit 1988), Constant v. Advanced Micro-Devices, Inc., 848 F. 2d 1560, 7 U.S.P.Q. 2d 1057 (Fed. Circuit 1988), and Richardson v. Suzuki Motor Company, 868 F. 2d 1226, 9 U.S.P.Q. 2d 913 (Fed. Circuit 1989). Nowhere within the four corners of the Rampton publication is there disclosure or even a vague suggestion of submerging sawmill waste in a body of heated water for a predetermined period of time to kill microorganisms, insects, plant and animal parasites while at the same time transporting treated sawmill waste toward an outlet of a conveyor mechanism where at least partial separation between endogenous bark and exogenous bark is effected by the application to the sawmill waste by the conveyor system of mechanical shear forces as the sawmill waste is submerged or introducing comminuted sawmill waste, comprising particulate pine bark having a layer of exogenous bark adhering to endogenous bark, into an inlet of a conveyor mechanism containing a body of heated water including a chemical treatment composition, as defined in amended independent claim 1. Accordingly, it cannot be said that the Rampton publication anticipates Applicant's invention as claimed in amended independent claim 1, or dependent claims 2, 5-8, 12 and new claims 32-34.

These distinctions are quite important, for they reflect significant differences in both construction and reliability between Applicant's claimed invention and the device taught in Rampton. More particularly, In rejecting claim 1 on the basis of the teachings of the Rampton publication, the Examiner has ignored an important distinction in the nature of Applicant's invention. The Rampton publication describes a process wherein pulverized bark mill waste, the same feedstock as the subject invention, is fed into a reaction vessel 12 (FIG. 2) substantially filled with heated water. At page 6, lines 16 to 21, it is stated ". . .as the particulate bark is added to the reaction vessel it floats on the surface of the aqueous limestone suspension within the tank. The floating layer of bark is conveyed from one end of the vessel to the other at a predetermined rate. . . ." In the paragraph bridging pages 6 and 7 of the Rampton publication, it is stated that ". . .as the bark particles progress along the surface of the water in the vessel 12 particles of sapwood exogenous bark, endogenous bark, dirt and other contaminants sink to the floor of vessel 12. . . ." At page 7, lines 19 to 24, it is stated ". . .as the hot treated bark particles come into contact with the cold water (in separation vessel 19) the exogenous bark portion separates from the sapwood and endogenous bark portions and the latter sink to the floor of vessel 19 while the exogenous bark portion continues to float. . . ."

As clearly described with reference to FIG. 2 of the drawings, the Rampton publication process produces two separate products, the first being the exogenous bark particles which float on the surface of the water in separation vessel 19 and that are removed by conveyor 20 which, as described at page 4, lines 32 to 37, is subject to initial drainage before being dried in a rotary kiln and sold as a plant growth medium,

particularly for orchids. The non-floating mill waste component, comprising sapwood and endogenous bark, is removed from separation vessel 19 by a scraper conveyor 21 which is subjected to partial moisture removal on mesh conveyor 30, as shown in FIG. 2. In addition, dry heated air is passed upwardly through the layer of particulate matter on conveyor 30 to reduce its moisture content. The sapwood and endogenous layer components only are then subjected to shredding in shredder 31 before a further drying process in a rotary screen dryer 31.

In stark contrast, the present invention as defined by amended claim 1 is concerned with treatment of the complete sawmill waste material comprising exogenous bark to which endogenous bark is adhered and some sapwood. Claim 1 has been amended accordingly to define the sawmill waste as comprising particulate pine bark having a layer of exogenous bark adhering to endogenous bark. Claim 1 has been limited further to emphasise that at least partial separation between the endogenous bark and the exogenous bark is effected by the application to the sawmill waste by the conveyor system of mechanical shear forces while the sawmill waste is submerged. This is wholly unlike the teachings of the Rampton publication which require substantially complete separation of the exogenous and endogenous bark particles to produce two totally different products, one being a plant growth medium comprised substantially only of exogenous bark particles and the other comprising substantially only endogenous bark particles and some sapwood shredded to produce a fibrous mass which "has an appearance not dissimilar to a mixture of coconut fibre and peat moss" (lines 11 and 12 of page 8 of Rampton).

In order for a prima facie case of obviousness to be established, there still must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, and the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2142 [emphasis added]. It should be noted that the Rampton publication stresses the importance of the separation of the exogenous and endogenous bark particles to produce the two totally different products, each having totally different physical properties and each having totally different intended uses, namely, plant growth medium for orchids on the one hand, and a peat moss equivalent on the other. There is no suggestion whatsoever in the Rampton publication that, in effect, the two separate products of the Rampton process could be combined to produce a plant growth medium nor would it be obvious to a person skilled in the art that sawmill waste comprising particulate pine bark having a layer of exogenous bark adhering to endogenous bark may be treated by submerging the sawmill waste (in an apparatus capable of submerging the otherwise buoyant sawmill waste) whereby during the transportation of the treated sawmill waste between an inlet and outlet of the conveyor, the conveyor system itself imposes mechanical shear forces whilst said sawmill waste is submerged to achieve at least partial separation between said endogenous bark and said exogenous bark.

While the Rampton publication does disclose (in the passage bridging pages 6 and 7) that some particles of exogenous bark sink to the floor of treatment vessel 12, this is only a miniscule proportion as the primary separation between the exogenous

and endogenous bark components occurs in separation vessel 19. Accordingly, the expression "submerging said sawmill waste" when reasonably construed means substantially all of the sawmill waste whereas the Rampton publication clearly indicates that the major part of the exogenous bark is not submerged either in treatment vessel 12 or separation vessel 19.

Insofar as the subject matter of original claim 4 was concerned, the Examiner relies on the statement at page 6, line 4 referring to the feedstock of the Rampton publication as having been subjected to mechanical shear forces before the chemical treatment process occurs. Claim 1 as originally filed, required that these mechanical shear forces be effected in, the conveyor system and as the feedstock for the Rampton process and the subject process is substantially identical, original claim 4 imposed the limitation where further partial separation of endogenous and exogenous bark was effected in the conveyor system while submerged. Claim 1 as amended clarifies this issue and adds the further limitation that the mechanical shear forces are applied by the conveyor system, a characteristic which would be readily apparent to a skilled artisan as inherent in the conveyor system as there is no other mechanism described capable of applying a mechanical shear force to the sawmill waste while submerged.

Applicant respectfully submits that claim 1, as amended, clearly distinguishes from Rampton alone, or Rampton in combination with Lebo (US 3,960,718). Moreover, the Rampton publication alone or, in any valid combination with any of the prior art of record in this application would not render the subject matter of amended claim 1 obvious to a person skilled in the art. In particular, there is no such suggestion or

knowledge generally available to one of ordinary skill in the art to modify either the Rampton publication or Lebo process either alone or in combination to perform the process of proposed amended claim 1, particularly as it gives rise to a product having quite different physical properties from the two products of the Rampton process or the product of the Lebo process.

In view of the foregoing, Applicant respectfully submit that claims 1-2, 5-8, 12 and new claims 32-34 are in condition for allowance. Favourable reconsideration is therefore respectfully requested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

If a telephone conference would be of assistance in advancing prosecution of the above-identified application, Applicant's undersigned Attorney invites the Examiner to telephone him at **215-979-1255**.

Respectfully Submitted,

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